

## Showman, Keith (DEQ)

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**From:** Adams, Danielle (DEQ)  
**Sent:** Friday, June 03, 2016 10:09 AM  
**To:** 'ED BELSKI'  
**Subject:** Endless Caverns STP, VPDES Permit No. VA0071846, Rockingham County

ED BELSKI  
Endless Caverns STP  
1800 Endless Caverns Rd  
New Market, VA 22844

Dear Mr. Belski:

Your application has been reviewed and appears to be complete. The waivers you requested from sampling and reporting have been granted. The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review. I expect to have this draft permit package to you within the next 2 months.

The Department of Environmental Quality strives to complete the permitting process in a timely manner. If you have any questions about our procedures or the status of your draft permit, please do not hesitate to contact us.

Sincerely,

Danielle Adams

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Land Application Specialist | DEQ-Valley Regional Office | PO Box 3000, Harrisonburg, VA 22801 | Ph. 540-574-7814 | Fax 540-574-7878

**MEMORANDUM**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**VALLEY REGIONAL OFFICE**

4411 Early Road - P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Application Errata for VPDES Permit No. VA0071846, Endless Caverns STP,  
Rockingham

TO: PP File

FROM: Danielle Adams

DATE: 6/3/16

The following deficiencies were noted in the subject permit reissuance application:

Form 2A

Item A.6. – Annual average and maximum daily flow rates for Outfall 001 were not provided on the application, since this information was previously submitted with the monthly Discharge Monitoring Reports (DMR's).

Item A.9.e. – Annual average flow rates for Outfall 001 was not provided on the application, since this information was previously submitted with the monthly DMR's.

Item A.9.f. – The mode of discharge is marked as intermittent/periodic, but the facility should be considered a continuous discharge even though it only operates seasonally.

Item A.11.c. Based on information on file, U.V. is the primary disinfection method.

Item A.12. Effluent testing information for Outfall 001 was not provided on the application, since this information was previously submitted with the monthly DMR's. The applicant has requested a waiver from fecal coliform and temperature. The request waivers appear to be justified.

The deficiencies noted are insignificant and will not affect the preparation of a legally and technically defensible draft permit.

Reviewer Concurrence: GMJ 9-8-16

## VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Endless Caverns, LLC  
*Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.*
2. **Is this facility located within city or town boundaries?** ☐ YES ☒ NO  
Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.
3. **What is the tax map parcel number for the land where this facility is located?** 54(A)63
4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0.00
5. **ALL FACILITIES: What is the design average flow of this facility?** 0.039 MGD  
Industrial facilities: **What is the maximum 30-day avg. production level (include units)?** \_\_\_\_\_

**In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels?** ☒ YES ☐ NO

**If "Yes", please specify the other flow tiers (in MGD) or production levels:** 0.01, 0.02, and 0.03

*Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?*

6. **Nature of operations generating wastewater:**  
RV Campground and Endless Caverns Tourist Facility
- 100 % of flow from domestic connections/sources  
Number of private residences to be served by the wastewater treatment facilities: ☒ 0 ☐ 1-49 ☐ 50 or more
- 0 % of flow from non-domestic connections/sources
7. **Mode of discharge:** ☐ Continuous ☐ Intermittent ☒ Seasonal  
Describe frequency and duration of intermittent or seasonal discharges:  
The RV park and campground is a seasonal facility operating April through October annually
8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**  
☒ Permanent stream, never dry  
☐ Intermittent stream, usually flowing, sometimes dry  
☐ Ephemeral stream, wet-weather flow, often dry  
☐ Effluent-dependent stream, usually or always dry  
☐ Lake or pond at or below the discharge point  
☐ Other: \_\_\_\_\_
9. **Consent to receive electronic mail**  
The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:
- ☒ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.  
Please provide email: ed.belski@gopromegroup.com
- ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.

FACILITY NAME AND PERMIT NUMBER:  
Endless Caverns VA0071846

Form Approved 1/14/99  
OMB Number 2040-0086

## BASIC APPLICATION INFORMATION

### PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

#### A.1. Facility Information.

Facility name Endless Caverns, LLC

Mailing Address 1800 Endless Caverns Road, New Market, VA 22844

Contact person Edward N. Belski, PE

Title Director of Facilities Engineering

Telephone number (518) 369-3815

Facility Address 1800 Endless Caverns Road  
(not P.O. Box) New Market, VA 22844

#### A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Contact person \_\_\_\_\_

Title \_\_\_\_\_

Telephone number \_\_\_\_\_

#### Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☒ facility ☐ applicant

#### A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA00 718-46 PSD \_\_\_\_\_

UIC \_\_\_\_\_ Other \_\_\_\_\_

RCRA \_\_\_\_\_ Other \_\_\_\_\_

#### A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Endless Caverns RV Park</u>	<u>600 campers</u>	<u>Gravity</u>	<u>Endless Caverns, LLC</u>
_____	_____	_____	_____
_____	_____	_____	_____

Total population served \_\_\_\_\_



## FACILITY NAME AND PERMIT NUMBER:

Endless Caverns VAA0071846

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Contact person: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number: \_\_\_\_\_

For each treatment works that receives this discharge, provide the following:

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Contact person: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number: \_\_\_\_\_

If known, provide the NPDES permit number of the treatment works that receives this discharge. \_\_\_\_\_

Provide the average daily flow rate from the treatment works into the receiving facility. \_\_\_\_\_

NA mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

\_\_\_\_ Yes



No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: \_\_\_\_\_

Is disposal through this method \_\_\_\_\_ continuous or \_\_\_\_\_ intermittent?

## FACILITY NAME AND PERMIT NUMBER:

Endless Caverns VA0071846

Form Approved 1/14/99  
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## WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

## A.9. Description of Outfall.

- a. Outfall number 001
- b. Location 1800 Endless Caverns Road  
(City or town, if applicable) Rockingham (Zip Code) Virginia  
(County) N38d 35.963' (State) W78d 40.694'  
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 0.00 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? ☒ Yes ☐ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: Designed for daily discharge
- Average duration of each discharge: design 12-18 hrs, actual 0 hrs
- Average flow per discharge: design 0.015 to 0.025, actual 0.00 mgd
- Months in which discharge occurs: design Apr to Oct, Actual - none
- g. Is outfall equipped with a diffuser? ☐ Yes ☒ No

## A.10. Description of Receiving Waters.

- a. Name of receiving water Smith Creek
- b. Name of watershed (if known) \_\_\_\_\_
- United States Soil Conservation Service 14-digit watershed code (if known): \_\_\_\_\_
- c. Name of State Management/River Basin (if known): \_\_\_\_\_
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): \_\_\_\_\_
- d. Critical low flow of receiving stream (if applicable):  
acute \_\_\_\_\_ cfs chronic \_\_\_\_\_ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): \_\_\_\_\_ mg/l of CaCO<sub>3</sub>

FACILITY NAME AND PERMIT NUMBER:  
Endless Caverns VA0071846

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**A.11. Description of Treatment.**

- a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary  
☐ Advanced ☐ Other. Describe: \_\_\_\_\_

- b. Indicate the following removal rates (as applicable):

Design BOD<sub>5</sub> removal or Design CBOD<sub>5</sub> removal 90-95 %  
Design SS removal 90-95 %  
Design P removal %  
Design N removal %  
Other %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

UV and chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ☒ Yes ☐ No

- d. Does the treatment plant have post aeration? ☒ Yes ☐ No

**A.12. Effluent Testing Information.** All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: \_\_\_\_\_ Waiver requested due to no discharge

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)		s.u.			
pH (Maximum)		s.u.			
Flow Rate					
Temperature (Winter)					
Temperature (Summer)					

\* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

**CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.**

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5						
	CBOD-5						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

**END OF PART A.**  
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**



FACILITY NAME AND PERMIT NUMBER:  
Endless Caverns VA0071846

Form Approved 1/14/99  
OMB Number 2040-0086

## BASIC APPLICATION INFORMATION

### PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

#### Indicate which parts of Form 2A you have completed and are submitting:



Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing; Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

#### ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Edward N. Belski, Director Facilities Engineering

Signature 

Telephone number (518) 369-3815

Date signed 04/25/2016

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

**SEND COMPLETED FORMS TO:**

# VPDES Sewage Sludge Permit Application for Permit Reissuance

## Instructions

**WHO MUST SUBMIT THE APPLICATION** - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.

Part 1 is general information to be provided by all facilities.

Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.

Part 3 must be completed by all facilities that land apply Class B biosolids.

## Part 1 – Sludge Disposal Management (To be completed by all facilities)

**Facility Name:** Endless Caverns, LLC

**VPDES Permit No:** VA 0071846

### 1. Shipment Off Site for Treatment or Blending N/A

Is sewage sludge from your facility sent to another facility that provides treatment or blending?

N/A

☐ Yes

☐ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name \_\_\_\_\_

b. Receiving Facility VPDES Permit No. \_\_\_\_\_

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge \_\_\_\_\_

### 2. Disposal in a Municipal Solid Waste Landfill N/A

Is sewage sludge from your facility placed in a municipal solid waste landfill?

☐ Yes

☐ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name \_\_\_\_\_

b. Landfill Permit No. \_\_\_\_\_

c. Include an acceptance letter from the landfill.

### 3. Incineration N/A

Is sewage sludge from your facility fired in a sewage sludge incinerator?

☐ Yes

☐ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?

☐ Yes

☐ No

If yes, provide the Air Registration No. \_\_\_\_\_

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name \_\_\_\_\_

c. Air Registration No. \_\_\_\_\_

d. Include an acceptance letter from the Incinerator.

### 4. Class A Biosolids N/A

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2.

☐ Yes

☐ No

Are Class A biosolids from your facility land applied in bulk?

☐ Yes

☐ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the

☐ Yes

☐ No

VDACS certification number? \_\_\_\_\_

### 5. Class B Biosolids N/A

Do you produce Class B biosolids? If yes, complete Part 2.

☐ Yes

☐ No

Are Class B biosolids from your facility land applied under the authorization of this VPDES Permit? If yes, complete Part 3.

☐ Yes

☐ No

### 6. Land Application Under a Separate Permit N/A

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit?

☐ Yes

☐ No

Biosolids are land applied under the authorization of a ☐ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name \_\_\_\_\_

b. Permit No. \_\_\_\_\_

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of 9VAC25-31-530 F.

## VPDES Sewage Sludge Permit Application for Permit Reissuance

### Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☒ No
2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9VAC25-31-710 A 3 through A 8 or Class B pathogen requirements in 9VAC25-31-710 B 1 through B 4? N/A ☐ Yes ☐ No  
Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. \_\_\_\_\_
3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10? N/A ☐ Yes ☐ No  
Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. \_\_\_\_\_
4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540 B? N/A ☐ Yes ☐ No
5. Has data from the most recent 3 samples for pH (S.U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as CaCO<sub>3</sub> (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☐ Yes ☐ No  
If no, provide the data with this application. \_\_\_\_\_

### Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100 P 9. N/A
2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C). N/A
3. Are any new land application fields proposed at this reissuance? ☐ Yes ☒ No  
If yes, contact the DEQ Regional Office for additional submittal requirements.
4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. N/A ☐ Yes ☐ No  
If no, contact the DEQ Regional Office for additional submittal requirements.
5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? N/A ☐ Yes ☐ No
  - a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.
  - b. A description of the transport vehicles to be used.
  - c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.
  - d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.
  - e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.
  - f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

### Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title Edward N. Belski, Director of Facilities Engineering

Signature 

Telephone number / Email (518) 369-3815 /

Date signed 04/28/2016

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)

Note: The Endless Caverns treatment plant has not yet been placed in service. There are no plans to activate the plant in the near future. As such, no sludge has been generated and no disposal arrangements have been made. Appropriate arrangements will be made and reported to DEQ prior to activating the plant.